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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,737	06/24/2005	Nobuo Ando	03702/0203075-US0	2400

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EXAMINER	
YANCHUK, STEPHEN J	
ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
11/30/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/540,737	ANDO ET AL.	
	Examiner	Art Unit	
	STEPHEN YANCHUK	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,10,11 and 13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,10,11 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

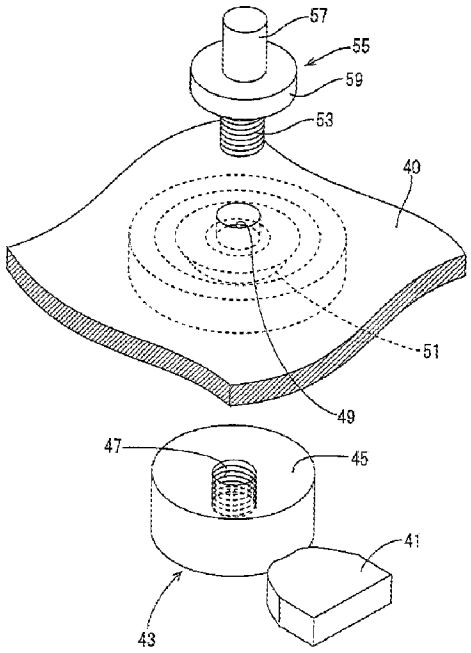
Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 1, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higa (PGPUB 2002/0039678) and further in view of Kawakami et al. (EP 1089362).

FIG. 13



Higa Figure 13

Claim 1, 10, 13: Higa teaches a battery seal wherein a pole connected to the electrodes and disposed beneath the holes passes through the casing [Abstract, Figure

13]. Figure 1 clearly shows a positive and negative electrode of similar constructions. The electrodes (6,7) are connected to the pole (13, 45). Figure 13 shows a terminal with a hole facing the outside which does not allow the hole to connect to the interior of the storage body (47). The surface film (40) covers the electrodes (storage body) except for the hole in the terminal (47). Higa fails to teach the active material of the electrodes to be reversible with lithium ions, the capacity of the negative active material being over 3 times that of the positive active material, and the weight of the positive material larger than the negative active material.

Kawakami teaches a rechargeable battery comprising an anode of lithium metal, lithium alloy, and carbon material [Paragraph 73]. Binders and additives can be added to the material [Paragraph 74]. The cathode is taught to be made of manganese dioxide, lithium-cobalt oxide, lithium-nickel oxide [Paragraph 6]. Other cathode materials are polyacetylene, polypyrrole, polyanillne, and polyphthalocyanlne [Paragraph 67]. Conductive materials can be added to the cathode [Paragraph 67]. It would have been obvious of one of ordinary skill in the art to utilize Kawakami in Higa because Kawakami teaches a rechargeable lithium battery of high performance and high performance [Paragraph 32].

3. Claim 1, 10-11, 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higa (PGPUB 2002/0039678) and further in view of Kawakami et al. (EP 1089362) and Yata (USPAT 4,615,960).

Claim 1: Higa teaches a battery seal wherein a pole connected to the electrodes and disposed beneath the holes passes through the casing [Abstract, Figure 13]. Figure 1 clearly shows a positive and negative electrode of similar constructions. The electrodes (6,7) are connected to the pole (13, 45). Figure 13 shows a terminal with a hole facing the outside which does not allow the hole to connect to the interior of the storage body (47). The surface film (40) covers the electrodes (storage body) except for the hole in the terminal (47). Higa fails to teach the active material of the electrodes to be reversible with lithium ions, the capacity of the negative active material being over 3 times that of the positive active material, and the weight of the positive material larger than the negative active material.

Kawakami teaches a rechargeable battery comprising an anode of lithium metal, lithium alloy, and carbon material [Paragraph 73]. Binders and additives can be added to the material [Paragraph 74]. The cathode is taught to be made of manganese dioxide, lithium-cobalt oxide, lithium-nickel oxide [Paragraph 6]. Other cathode materials are polyacetylene, polypyrrole, polyanillne, and polyphthalocyanlne [Paragraph 67]. Conductive materials can be added to the cathode [Paragraph 67]. It would have been obvious of one of ordinary skill in the art to utilize Kawakami in Higa because Kawakami teaches a rechargeable lithium battery of high performance and high performance [Paragraph 32].

Yata teaches method of modifying an electrode with a polyacene type skeletal structure having hydrogen/carbon atomic ration from .05-.6 [Abstract]. It would have been obvious to use the electrodes of Yata in Kawakami because Yata teaches higher

electrical conductivity than non-doped substrates and it being used as an electrode [Abstract].

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

2. The applicant claims positive materials based on their material properties within the system. To find the structure of the battery, the examiner looks to the specification in order to find structural examples of the broader claim. The applicant addresses the negative material to comprise a polyacene-based skeletal structure where hydrogen/carbon ratio is in the range of .5-.05. The applicant addresses the positive material to comprise an active carbon, a conductive polymer, or polyacenic substance [Paragraph 56]. The applicant addresses the negative material to comprise various carbonic materials such as graphite, hard carbon, cokes and the like, polyacenic-series substances, silver oxide, silicon oxide and PAS [Paragraph 57]. It is further assessed from the examples that the intent is to have the positive and negative electrodes being PAS of different thicknesses. The applicant must show unpredictable results from the specific sizes of the active material wherein that must also be claimed wherein alteration of size and amount of material does patentably distinct the instant application from the prior art. *MPEP 2144.04.IV*. The finding of these materials in the prior art will overcome the claim; further limitations adding structural limitations should be considered by the applicant to overcome the prior art.

3. The applicant argues that mere selection of the same materials is not enough to overcome the rejection. The examiner maintains that adjusting the quantity of each active material is within the skill of one of ordinary skill of the art.

4. The examiner now interprets the claim to be drawn to two separable entities, one being the internal material and one being the casing containing the material. A divisional is possible that separates the active materials and the casing since they are independent of each other.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN YANCHUK whose telephone number is (571)270-7343. The examiner can normally be reached on Monday through Thursday 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN YANCHUK/
Examiner, Art Unit 1795

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795